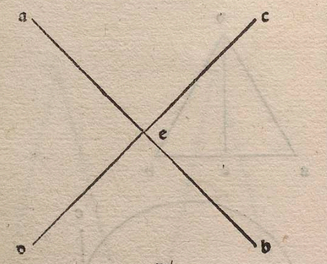

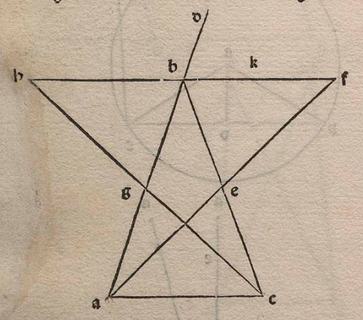

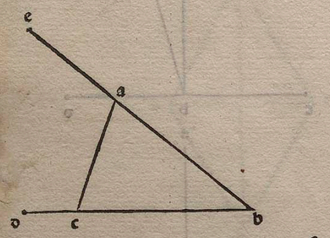

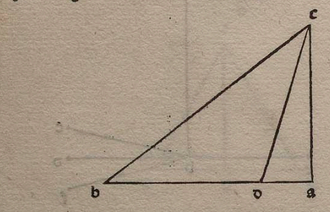

d.b.a. ps toti: quod ē ipossibile: sīr lineā.c.b. ptractā ꝓbabis angulū d.b.a. esse eqlem angulo.f.b.a. si forte diceret aduersari⁹ lineā.c.b. ptractā cadere ifra.b.d.

Propositio 15.

OMnium duarū linearum se inuicē secātiū: oēs anguli cōtra se positi sūt e qles: vnde manifestū est ꝙ cū due linee recte se inicē secāt ꝙtuoz q̄ fiūt āgulos ꝙtuor rectis eē eqles

CSint due linee.a.b. z.c.d. se inicē secātes i pūcto.e. dico ꝙ angul⁹ d.e.b. est eqlis angulo.a.e.c. z angulus.b.e.c. ē eqlis angulo.a.e.d. Erūt.n.p.13. duo anguli.a.e.c. z.c.e.b. eqles duob⁹ rectis: itēqz duo anguli.c.e.b. z.d.e.b. eqles duobus rectis p candē: qre duo ꝑmi sūt eqles duob⁹ postremis eo ꝙ oēs recti sūt ad inuicē equales p.4. petitionē: dempto ergo cōi angulo q̄ ē c.e.b. erit angulus.a.e.c. eqlis angulo.d.e.b. Eodē mō ꝓbabit⁹ anguluz.c.e.b. cē eqlez angulo.a.e.d. qō ē ꝓpositū.

Propositio 16

SI quodlibet laterū trianguli directe ꝓtrahaī faciet angulum extrinsecum vtroqz angulo trianguli sibi intrinsecus opposito maiozem.

CSit vt trianguli.a.b.c. latus.a.b. ꝓtrahaī vsqz ad.d. dico ꝙ angulus.d.b.c. maioz ē vtroqz duoz angulox itrinsecox sibi opposito/rū q̄ sūt.b.a.c. z.b.c.a. diuidā.n.p.10. lineā.c.b. p eqlia in pūcto.e. z ꝓtrahā.a.e. vsqz ad.f. ita vt.c.f. fiat eqlis.a.e. z ꝓtrahā lineā.f.b. intelligo duos triangulos c.e.a. z.b.e.f. z q̄ duo latera.a.e. z.e.c. trianguli.a.e.c. sūt eqlia duobus lateribus f.e. z.e.b. trianguli.f.e.b. z angulus.e. vnius ē eqlis angulo.c. alteri⁹ p ꝑmissā q̄a sūt anguli ꝯpositi: erit p.4. angul⁹.c.e.a. eqlis angulo.e.b.f. z iō angulus.e.b.d. maioz erit angulo.b.c.a. Sīr quoqz ꝓbabitur ꝙ est maioz angulo.c.a.b. nqz diuidam.a.b. p eqlia in pūcto.g. p.10. z ꝓtrabaz lineā.g.b. equalē lineę.c.g. p.3. postea ꝓtrahā.b.b.k. erūtqz duoz triāguloz q̄ sūt.a.g.c. z.b.g.b. duo latera.a.g. z g.c. ꝑmi eqlia duob⁹ lateribus.b.g. z.b.b. scōi: z angulus.g. vni⁹ angulo.g. alteri⁹ p 15. ergo p.4. angulus.g.c.a. est eqlis angulo.g.b.b. qre p.15. z angulo.k.b.d z q̄ angulus.c.b.d. ē maioz angulo.k.b.d. erit etiā maioz āgulo.b.a.c. qō ē ꝓpositū.

Propositio .17.

OMnis triāguli duo qlibet āguli duob⁹ rectis sūt mīozes.

CSit triangulus.a.b.c. dico ꝙ duo qlibet ei⁹ anguli duob⁹ rectis sūt minozes: ꝓtrahaī.n. vnū latus eius vt.b.c. vsqz ad.d. eritqz p ꝑce/dentē angulus.e. extrinsecus maioz.a. z maioz.b. 3.c. extrinsec⁹ cum c. intrinseco ē eqlis duobus rectis p.13. g̃ anguli.b. z.c. intrinseci siue anguli.a. z.c. intrinseci sūt minozes duobus rectis: sīr si ꝓtrahaī latus.b.a. ꝓbabit⁹ ꝙ duo anguli.a. z.b. sunt minozes duobus rectis: quod ē ꝓpositū.

Propositio .18.

OMnis trianguli lōgius lat⁹ maioꝛi angulo oppositū est.

CSit vt i ƭangulo.a.b.c. āgul⁹.a. sit maioꝛ āgulo.c. dico ꝙ lat⁹ c.b. maioꝛ erit latere.a.b. Si.n. sit eqle erit p.5. āgul⁹ a. eqt̄ angulo.c. qō ē ꝯ ypothesym: si aūt.a.b. sit mai⁹ rescecē ad eqlitatē.c.b. p.3. sitqz d b. eqle.c.b. erit g̃ p.5. āgul⁹ d.c.b. eqt̄ angl'o.b.d.c. 3.b.d.c. ē maioꝛ āgulo.b.a.c. p.16. g̃. b.c.d. ē maioꝛ. b.a.c. qre mlto fortī⁹ maioꝛ. a.c.b. ps toto: qō ē ipossibile.

Propositio .19.

OMnis trianguli maioꝛi angulo longius latus oppositū ē

CSit vt in triangulo.a.b.c. latus.b.c. sit mai⁹ latere.a.b. dico ꝙ angul⁹ a. erit maioꝛ angulo.c. z ē ꝓuersa ꝑcedētis: si.n. sit eqlis tūc p.6. latus.a.b. ē eqle lateri.b.c. qō est ꝯ ypothesym: Si āt.c. sit maioꝛ tūc p ꝑcedentē latus.a.b. ē mai⁹ latere.b.c. qō ē ꝯ ypothesym qre astruit ꝓpositum.

Propositio 20.

OMnis trianguli duo quelibet latera simul iuncta reliquo sunt longioꝛa.

CSit triāgul⁹.a.b.c. dico ꝙ duo latera.a.b. z.a.c. sūt lōgioꝛa latere b.c. ꝓtrahaī linea.b.a. vsqz ad.d. ita vt a.d. sit eqlis.a.c. z ꝓtrahaī c.d. p.5. erit angulus.a.c.d. eqlis angulo.d. qre angul⁹.b.c.d. ē maioꝛ angulo.d. ergo p.18. latus.b.d. est mai⁹ latere.b.c. 3.b.d. ē eqle.a.b. z a.c. qre b.a. z.a.c. sīl' iūcta sūt maioꝛa.b.c.

Propositio .21.

SI de duobus punctis terminalibus vnius lateris triāguli due linee exeuntes intra triangulum ipsum ad punctū vnū ꝙueniant eedē duabus quidē reliquis trianguli lineis bꝛeuioꝛes erunt z maioꝛē angulum continebunt.

CSit vt in triangulo.a.b.c. ab extremitatibus lateris.b.c. concurrant due linee.b d. z.c.d. ad punctū.d. intra triangulum.a.b.c. dico ꝙ ipse simul iuncte sūt bꝛeuioꝛes duabus lineis.a.b. z.a.c. sīl' iunctis z ꝙ angulus.d. ē maioꝛ angulo.a. ꝓtrahā eni.b.d. vsqz quo secet latus.a.c. in puncto.e. eruntqz per.20.b.a. z.a.e. simul iū/cte maioꝛes.b.e. ergo.b.a. z.a.c. sunt maioꝛes.b.e. z.e.c. At vero.d.c. z.e.c. simil' iuncte p candē sūt maioꝛes.d.c. qre.b.e. z e.c. sunt maioꝛes.b.d. z.d.c. z q̄.b.a. z a.c. sunt maioꝛes.b.e. z.e.c. vt ꝓbatū ē ꝓius erūt multo fortius maioꝛes.b.d. et d.c. qō ē ꝑmū ꝓpositum: At qm̃ angulus.b.d.c. est maioꝛ angulo.d.e.c. p.16. et angulus.d.e.c. ē maioꝛ angulo.e.a.b. p candē: erit angulus.b.d.c. multo fortī⁹ maioꝛ angulo.b.a.c. qō ē scōz ꝓpositū.

Propositio .22.

POsitis tribus lineis rectis quarū due quelibet simul iuncte reliquę sint longioꝛes de tribus alijs lineis sibi e/qualibus triangulum constituere.

CSint tres linee recte ꝓposite.a.b.c. z sint quelibet due sīl iūcte longioꝛes reliq̄. aliē. n. ex illis tribus eqlibus triangul⁹ non posset constitui p.20. cū g̃ ex illis tribus ꝑdictis volo ꝟstituere triangulū: sūmo lineā rectam que sit.d.e. cui nō pono a ꝓte.e. determiatū finē: ꝺ q̄ sūmo p.3. d.f. equalē.a. z.f.g equalē.b. z.g.h. eqlem.c. fcōqz puncto.f. centro describo ꝟm quantitatē linee.f.d. circulū.d.k. itēqz facto.g. centro describo ꝟm q̄titatē linee.g.h.k.b. q̄ circuli iter/secabunt se in duobus punctis quoꝝ vnū sit.k. alioquin sequereī vnā dictaꝝ linearū esse equalē alijs duab⁹ iunctis aut maioꝛibꝫ cis: quod est ꝓhibitum ponī: duco ergo lineā.k.f. z.k.g. eritqz triangulus.k.f.g. constitutus ex tribus lineis eqlib⁹ lineis a.b.c. datis: sūt enim.f.d. z.f.k. equales qm̃ sunt a centro ad circūferentiā quare f.k. ē equalis.a. Similit̄qz.g.b. z.g.k. sunt equales: quia exeunt a centro ad circū/ferentiam: quare.g.k. est equalis c. z quia.g.f. sūpta fuit equalis.b. patet ꝓpositum manifeste.

Propositio .23.